IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of	Docket No: Q65332
Andre MESSAGER, et al.	
Appln. No.: 09/907,908	Group Art Unit: 2642
Confirmation No.: 9943	Examiner: Thjuan P. KNOWLIN
Filed: July 19, 2001	

For: METHOD OF PROVIDING THE FACILITY FOR SOME COMMUNICATION
NETWORK USERS TO HAVE PREFERENTIAL ACCESS FOR PARTICULAR CALLS

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

I.   REAL PARTY IN INTEREST

The real party in interest is Alcatel.

II.   RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III.   STATUS OF CLAIMS

Claims 1-13 are pending in the application.

Claims 1, 2, 4-6 and 8-13 are rejected under 35 USC 103(a) as unpatentable over Birze (U.S. Patent 5,926,537).

Claims 3 and 7 are rejected under 35 USC 103(a) as unpatentable over Birze in view of Bressler (U.S. Patent 6,584,190).

IV.   STATUS OF AMENDMENTS

No amendments were filed subsequent to the final Office action of July 18, 2005.

V.   SUMMARY OF THE CLAIMED SUBJECT MATTER

The claimed invention relates to a method of providing preferential connections for

certain calls or certain callers. A call from one user to another over a telephone network is

typically established over one or more circuit segments, and

With reference to Fig. 1 by way of example, a calling party at terminal 1A may wish to

call a called party at terminal 1E. The call may be set up via node 2E, trunk 3GE, and node 2G,

or it could be set up via node 2E, trunk 3EF, node 2F, trunk 3FG and node 2G, with the choice of

which path being made in accordance with a variety of known factors. Each of the trunks 3GE,

3EF and 3FG is made up of a plurality of essentially parallel segments, and an available segment

is selected for the desired connection. But if there are no circuit segments available on one of the

trunks, the choice may not be available, or in fact no connection at all may be available. The

present invention is a way of trying to ensure that this does not happen.

One technique would be to permanently reserve a segment on trunk 3GE for

communications between terminals 1A and 1E, but this would be an inefficient use of resources

if these two terminals are not communicating for any significant periods of time. The present

invention strikes a compromise by reserving one or more segments for a class of call or a class of

caller, referred to as a "preferred" user, and then shares the reserved segments among preferred

users by dynamically allocating them when call set-up requests from preferred users are

received. With reference to Fig. 2 by way of example, the circuit segments on the trunk 3EF

between nodes 2E and 2F in Fig. 1 are divided into two groups. One group designated by

reference number 4 in Fig. 2 is reserved for calls by "preferred" users, and the other group

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designated by reference number 5 is for all other users. A terminal may be assigned a preferred

user attribute for particular calls, e.g., the terminal 1B may be considered a preferred user

whenever attempting to call the terminal 1D.

With reference to Fig. 3 and as described at pages 7-8 of the present application, the

terminal 1B and the terminal 1D can be connected by a circuit consisting either of a single hop

comprising one circuit segment specific to the trunk 3EF, as symbolized by the link L_{EF}, or of

two hops comprising two segments, one of which is a segment of the trunk 3GE and the other of

which is a segment of the trunk 3FG; the two segments are connected in series via the node 2G,

as symbolized by the link L_{EGF}.

The choice between the available paths between the terminals 1B and 1D for a call by a

given user initially involves determining if that user has a preferred user attribute allowing him

to set up a circuit using segments reserved to preferred users for the call requested. If so, a cost

algorithm is invoked which will likely give priority to searching for the path with the least hops

and therefore circuit segments between the nodes 2E and 2F to which the calling user 1B and the

called user 1D are respectively connected, preferably using circuit segments reserved to

preferred users, if the calling user 1B is a preferred user and if he is setting up a call for which he

has a preferred user attribute on record. The path is set up via an unreserved circuit segment of

the same trunk if no reserved segments are available but unreserved circuit segments are

available at the time.

The method according to the invention therefore organizes and manages dynamically a

set of reserved circuit segments on various trunks as a function of requests from users having

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particular preferred user attributes on record in the network, for example in the unit processing

routing in their respective connection nodes.

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are:

1. Whether claims 1, 2, 4-6 and 8-13 are unpatentable over Birze; and

2. Whether claims 3 and 7 are unpatentable over Birze in view of Bressler.

VII.   ARGUMENT

Birze teaches, as can be seen from the Abstract, an arrangement whereby the called terminal sends back a ring tone indicating the type of terminal it is (e.g., business, residential, cellular, wireline), and the calling party receives this ring tone and has the option of hanging up before the called party answers. As described at the top of column 5, upon making a determination as to the type of terminal being called, the terminating exchange sends a signal 150 back to the calling exchange, and then must wait for a response from the calling exchange. Lines 31-41 of column 5, cited by the examiner in support of the rejection, describe that in order to prevent someone from seizing the called party while it is waiting for a reply to the signal 150, the called party is marked as "busy", thus essentially setting aside the called party and the line associated with that called party. However, this is far different from reserving a set of lines ahead of time for preferred users as in the present invention.

First of all, claim 1 requires the reserving of a circuit segment on each trunk between switching nodes needed to set up circuits for particular calls between users at least one of whom is a preferred user. The examiner has identified exchanges 20 and 30A in Birze as corresponding to the claimed switching nodes, and has pointed to lines 31-41 of column 5 of Birze as describing the permanent reserving of circuit segments. Birze simply marks a terminal as "busy," and this will set aside the terminal and the line from the switch to that terminal, but this is not a segment between the exchanges 20 and 30A which the examiner has equated with the claimed switching nodes.

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Further, the examiner has equated the claimed "permanently reserving" step with the operation in Birze whereby a trunk is actually seized during the initial stages of call setup, but this is not the claimed permanent reservation of a circuit segment. This is a temporary seizure of one or more circuit segments. The examiner has himself noted that the line Birze "reserves" will be released at the end of the call before it is then (according to the examiner) dynamically allocated. This is not permanent in the context of the claimed invention. There must be some steady state of "reserved" that exists *prior* to any call being set up. Note that the claim language requires the dynamic allocation of circuit segments needed to set up a call in the event of a call setup request, and then recites that the circuit segments being dynamically allocated are "reserved segments," which inherently requires that the "reserved" state of the circuit segment exists *prior to* a call setup request and still exist at the time of allocation. In Birze as read by the examiner, the "reserved" status of a segment only comes into existence after a call setup request.

The claim further requires the dynamic allocation of circuit segments selected from the reserved segments in the event of a call set-up request by the preferred user, and the examiner has described the dynamic allocation of circuit segments in Birze as occurring after the reservation time has expired or after the call is terminated. However, the claim requires that, in response to a call set-up request, a segment is selected from reserved segments. In connection with the arrangement of Fig. 1 of Birze, the call set-up request is described in Birze at 45-46 of column 3, and it is further described at lines 54-55 of column 3 that a circuit connection is established in response to this call set-up request. At the time this happens, however, there are no reserved segments to select from. On the other hand, after this happens, the call has already

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been established. See, for example, lines 3-5 of column 4 which describe the sending back of a ring tone from the exchange 30A to the exchange 20 "since a call connection has already been established."

In connection with the arrangement of Fig. 2 of Birze, the call set-up signal is described at line 55 of column 4. As described at lines 61-65 of column 4 of Birze, a call connection 80 is established between the exchange 20 and the exchange 30A. Module 60 within exchange 30A then receives the IAM signal over this established connection, and application module 120A then sends back a determined type return signal 150 to the exchange 20 as discussed at line 11-14 of column 5. Thus, during all times subsequent to the initial call set-up signal, a call has been established and signals are exchanged between the calling and called exchanges 20 and 30A using the established connection.

As described in the paragraph beginning at line 19 of column 5, a timer is set to a value corresponding to the time within which the exchange 30A expects to receive a response to the determined type return signal it sent back to the exchange 20. During this period of time, the established connection is maintained. After the expiration of the time period with no reply from the exchange 20, the call connection is allowed to terminate, as stated at lines 27-28 of column 5 of Birze.

Thus, during this entire time subsequent to the initial call set-up signal, the call has been established between the exchanges 20 and 30A and it is maintained, and the established call is allowed to terminate if there is no further activity. No reserved segments between the exchanges

20 and 30A prior to a call setup request, and therefore no reserved segments from which

segments can be dynamically allocated in response to a call setup request.

The paragraph beginning at line 31 of column 5 describes that while the module 120A is

waiting for a response from the exchange 20, the line status associated with the subscriber

terminal 50A within the exchange 30A is marked as busy to prevent other incoming call

connections from seizing the subscriber terminal 50A. Note that this is during a time period

when the established connection between the exchanges 20 and 30A is still being maintained.

And this is not the reservation of a circuit segment between exchanges 20 and 30A, but simply

the marking of a line within the exchange 30A as busy so that some other call connection coming

over the trunk will not seize it. The result of this, as clearly stated at lines 37-41 of column 5, is

that:

> Consequently, the called party subscriber terminal 50A and associated line
> circuit is reserved by the first terminating exchange 30A for the calling party
> subscriber terminal 10 and the established call connection 80 associated
> therewith.

So a line circuit is reserved, but it is not for later selection in response to a call set-up

request, but is reserved for an already established call connection. And the reserved line circuit

is not a segment between the exchange 20 and the exchange 30A but is a line circuit from the

exchange 30A to the subscriber terminal 50A. So again, we have no reservation of circuit

segments between exchanges 20 and 30A at any time, and no dynamic allocation of such

reserved circuit segments in response to a call set-up request.

Finally, after the call is terminated, there is no "dynamic allocation" of the line circuit that had earlier been marked as busy. It is a line circuit associated with a single subscriber and must be used for all calls to that subscriber. That is, of course, why it is effective to mark that line circuit as busy if one does not want another call to connect to the subscriber terminal 50A.

As will be clear from the above discussion, Birze fails to teach or suggest central elements of the invention claimed in claim 1.

Claim 5 distinguishes over Birze for the same reasons as claim 1.

Claim 9 recites the permanent reserving of a subset of circuit segments between switching nodes, and is not satisfied by the reservation of a line circuit between the exchange 30A and the called terminal 50A. Claim 9 further requires that a subset of users have higher priority access to the reserved circuit segments. The examiner has not identified any reserved segments between exchanges 20 and 30A.

Claim 10 goes further and specifies that the reserved segments are only available for use by the subset of preferred users. Whatever segments the examiner might identify in Birze as being reserved, they are not allocated in such a manner that they are never available for users who are not preferred users.

Claims 11 and 12 describe according higher priority access to certain circuit segments between switching nodes, and this is not satisfied by providing preferential access to a line circuit between exchange 30A and subscriber terminal 50A.

In rejecting claims 3 and 7, the examiner has additionally relied on Bressler, but Bressler does not teach the features described above as missing from Birze in the context of the above-discussed rejection.

The remaining claims distinguish over the applied art at least due to their dependence on the claims discussed above.

An extension of time is requested, and the required fee is being separately authorized through the Electronic Filing System (EFS). The fee required under 37 C.F.R. §41.37(a) and 1.17(c) is also be authorized through the EFS.

The USPTO is directed and authorized to charge all other required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

___/DJCushing/___

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CLAIMS APPENDIX

CLAIMS 1-13 ON APPEAL:

1.   A method of providing preferential access for particular calls between preferred users of a communication network wherein said particular calls are established via circuits between switching nodes, said circuits comprising one circuit segment or a plurality of circuit segments connected in series, wherein for call setup each segment is selected from available circuit segments on a trunk between two switching nodes so that a circuit is set up enabling the calling user and the called user to communicate, which method includes the steps of:

permanently reserving at least one circuit segment on each trunk between switching nodes needed to set up circuits for said particular calls between users at least one of whom is a preferred user, and

dynamically allocating circuit segments selected from said reserved segments and needed to set up a circuit from a preferred user in the event of a call set-up request by said preferred user.

2.   The method claimed in claim 1 wherein a user attribute is assigned to each user and corresponds to a particular category indication in the case of preferred users included in the calling user identifier that is transmitted for setting up a circuit at the time of a call request.

3.   The method claimed in claim 1 wherein a minimum-cost algorithm used to choose a circuit at the time of a call request gives priority to choosing the shortest circuit set up via one or more reserved circuit segments in series when the request emanates from a user who has a preferred user attribute relating to the call requested and uses an unreserved circuit segment of a trunk if no reserved segments of said trunk are available and said trunk has at least one unreserved segment available at the time.

4.   The method claimed in claim 1 wherein processing capabilities of the network are used for all users in the event of saturation of a trunk concerning a call for which a user has a preferred user attribute.

5.   A communication network including switching nodes with point-to-point connections provided by trunks enabling users to communicate who have communication terminals each individually connected to one of said nodes, each call being obtained by means of a circuit set up between the nodes of users connected by a circuit segment in each trunk used, which communication network includes hardware and/or software for implementing a method of providing preferential access for particular calls between preferred users of a communication network wherein said particular calls are established via circuits between switching nodes, said circuits comprising one circuit segment or a plurality of circuit segments connected in series, wherein for call setup each segment is selected from available circuit segments on a trunk

between two switching nodes so that a circuit is set up enabling the calling user and the called

user to communicate, which network includes:

at least one permanently reserved circuit segment on each trunk between

switching nodes needed to set up circuits for said particular calls between users at least

one of whom is a preferred user, and

at least one of hardware and software which dynamically allocates circuit

segments selected from said reserved segments and needed to set up a circuit from a

preferred user in the event of a call set-up request by said preferred user.

6.   The network claimed in claim 5 wherein a preferred user attribute is assigned to

each user and corresponds to a particular category indication in the case of preferred users

included in the calling user identifier that is transmitted for setting up a circuit at the time of a

call request.

7.   The network claimed in claim 5 wherein a minimum-cost algorithm used to

choose a circuit at the time of a call request gives priority to choosing the shortest circuit set up

via one or more reserved circuit segments in series when the request emanates from a user who

has a preferred user attribute relating to the call requested and uses an unreserved circuit segment

of a trunk if no reserved segments of said trunk are available and said trunk has at least one

unreserved segment available at the time.

8.   The network claimed in claim 5 wherein processing capabilities of the network

are used for all users in the event of saturation of a trunk concerning a call for which a user has a

preferred user attribute.

9.   A method of providing preferred access for particular calls between users of a

network, said network including at least two switching nodes and a plurality of circuit segments

connected between said two switching nodes, said method comprising the steps of:

permanently reserving a subset of said circuit segments such that reserved and

unreserved segments are provided between said two switching nodes;

according preferred status to a subset of users of said network; and

providing higher priority access to said reserved segments for calls involving a

user having preferred status than for calls not involving a user having said preferred

status.

10.   The method claimed in claim 9, wherein said reserved segments are only

available to calls involving a user having said preferred status.

11.   A method of sharing capacity amongst users of a network, said network including at least two switching nodes and a plurality of circuit segments connected between said two switching nodes, said method comprising the steps of:

dividing said plurality of circuit segments into first and second segments;

according preferred status to a subset of users of said network; and

for calls involving a user having said preferred status, providing higher priority access to said first segments than to said second segments.

12.   A communications network including at least two switching nodes and a plurality of circuit segments connected between said two switching nodes, wherein

said plurality of circuit segments include first and second segments with a call involving a user having preferred status having higher priority access to said first segments than to said second segments; and

said network includes at least one of hardware and software which dynamically allocates said first segments amongst calls involving users having said preferred status.

13.   The network claimed in claim 12, wherein said first segments are only available to calls involving a user having said preferred status.

EVIDENCE APPENDIX:

There is no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other

evidence entered by the Examiner and relied upon by Appellant in the appeal.

RELATED PROCEEDINGS APPENDIX

There are no decisions rendered by a court or the Board in any proceeding identified

above in Section II pursuant to 37 C.F.R. § 41.37(c)(1)(ii).